

REMARKS

Reconsideration of the patent application in view of the preceding amendments and the following remarks is respectfully requested.

Objection To The Drawings

In the office action dated 6/1/01, the Draftsperson objected to the drawings. In response, the Applicants have redrafted the drawings. Please replace current **Figures 1 to 8** with revised **Figures 1 to 8**. No new matter has been added to the redrafted drawings. The Applicants respectfully request approval of the proposed redrafted drawings.

Rejection of the Claims Under 35 U.S.C. § 102 and § 103(a)

In the office action dated 6/1/01, the Examiner rejected claims under 35 U.S.C. § 102 and § 103(a). The Examiner stated that the claimed invention was anticipated by or obvious in view of U.S. patent 5,951,651 issued to Lakshman, et al. (hereinafter referred to as the Lakshman reference). In response, the Applicants have amended the claims to highlight features patentable over the cited reference.

The present invention is a dynamic system that can have rules added at any time. The system can handle rules that specify existing packet dimensions or new packet dimensions. The amended claims highlight these novel features and are therefore

allowable over the cited references. Specifically, the Lakshman reference does not teach a system that can add new rules wherein the system performs:

repeating said steps of dividing said set of rules along N dimensions, dividing each of said N dimensions into rule ranges using said set of rules, and generating a set of possible rules for each rule range in each of said N dimensions when a new rule not specifying a new dimension is added to said set of rules; and

repeating said steps of dividing each of said N dimensions into rule ranges using said set of rules, and generating a set of possible rules for each rule range in each of said N dimensions when a new rule specifying a new dimension is added to said set of rules .

CONCLUSION

In view of the foregoing, it is submitted that the claims are in condition for allowance. Reconsideration of the rejections and objections is requested. Allowance is earnestly solicited at the earliest possible date.

Respectfully submitted,

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Dated: 11/1/01


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The Amended Claims

The following pages provide the amended claims with the amendments marked with deleted material in [brackets] and new material underlined to show the changes made.

- 1 1. **(Amended)** A method of performing network packet filtering, said
- 2 method comprising:
- 3 dividing [preprocessing] a set of rules [to generate a set of rule ranges] along N
- 4 dimensions;
- 5 dividing each of said N dimensions into rule ranges using said set of rules;
- 6 generating a set of possible rules for each rule range in each of said N dimensions;
- 7 searching said rule ranges along said N dimensions in parallel to select [generate]
- 8 N sets of possible rules along said N dimensions;
- 9 logically combining said N sets of possible rules to generate a final set of
- 10 [possible] rules; [and]
- 11 applying said final set of [possible] rules;
- 12 repeating said steps of searching, logically combining, and applying for each
- 13 packet to filter;
- 14 repeating said steps of dividing said set of rules along N dimensions, dividing
- 15 each of said N dimensions into rule ranges using said set of rules, and
- 16 generating a set of possible rules for each rule range in each of said N
- 17 dimensions when a new rule not specifying a new dimension is added to said
- 18 set of rules; and

19 repeating said steps of dividing each of said N dimensions into rule ranges using
20 said set of rules, and generating a set of possible rules for each rule range in
21 each of said N dimensions when a new rule specifying a new dimension is
22 added to said set of rules .

1 2. **(Amended)** The method as claimed in claim 1 [further comprising:]
2 wherein generating a set of possible rules for each rule range in each of said N
3 dimensions comprises generating a rule bit vector for each rule range along each of said
4 N dimensions.[:] ;

1 3. **(Amended)** The method as claimed in claim 1 further
2 comprising:
3 generating a search structure for each [set of rule ranges along each] of said N
4 dimensions to locate a specific rule range.[:] ;

1 4. **(Unchanged)** The method as claimed in claim 3 wherein one of
2 said search structures comprises a look-up table.

1 5. **(Unchanged)** The method as claimed in claim 3 wherein one of
2 said search structures comprises a tree search structure.

1 **6. (Amended)** The method as claimed in claim 1 wherein applying said
2 final set of [possible] rules comprises selecting a highest priority rule in said final set of
3 [possible] rules.

1 **7.(Amended)** The method as claimed in claim 1 wherein applying said
2 final set of [possible] rules comprises applying more than one rule [all rules] in said final
3 set of [possible] rules.

1 **8. (Unchanged)** The method as claimed in claim 1 wherein each of
2 said N sets of possible rules comprise a rule bit vector that specifies a set of rules that
3 may apply.

1 **9. (Unchanged)** The method as claimed in claim 8 wherein said rule
2 bit vectors are logically ANDed together to produce a final bit vector of rules that apply.

1 **10. (Amended)** The method as claimed in claim 9 wherein applying
2 said final set of [possible] rules comprises selecting a highest priority rule in said final set
3 of [possible] rules.
4